

AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions of claims in the application.

1. (Original) A method of correcting shifts in position and attitude of an object which is held by a holding member and to which fiducial mark 1 and fiducial mark 2 are applied, said method comprising the steps of:

obtaining a position data of the fiducial mark 1 by image-processing the fiducial mark 1;

rotating the holding member holding the object to be held substantially by 180 degrees in a horizontal plane;

obtaining a position data of the fiducial mark 2 by image-processing the fiducial mark 2 rotated by 180 degrees; and

operating, on the basis of the position data of the fiducial mark 1 and the fiducial mark 2 rotated by 180 degrees, an amount of position shift from a rotational center of the holding member to a center of the object to be held and an amount of angle shift of the object in a horizontal plane with respect to a fiducial line of the holding member.

2. (Original) The method of correcting shifts in position and attitude of an object according to claim 1, wherein the object to be held is a head of a DNA micro-array preparing apparatus for arranging a number of spots on a substrate.

3. (Currently Amended) A computer readable medium contains program code for correcting,

~~by using a computer,~~ shifts in position and attitude of an object which is held by a holding member and to which fiducial mark 1 and fiducial mark 2 are applied, said program code being executed by a computer implements comprising:

- a sequence for obtaining a position data of the fiducial mark 1
- a sequence for rotating the holding member holding the object to be held substantially by 180 degrees in a horizontal plane;
- a sequence for obtaining a position data of the fiducial mark 2 rotated by 180 degrees; and
- a sequence for executing an operation, on the basis of the position data of the fiducial mark 1 and the fiducial mark 2 rotated by 180 degrees, for calculating an amount of position shift from a rotational center of the holding member to a center of the object to be held and calculating an amount of angle shift of the object in a horizontal plane with respect to a fiducial line of the holding member.

4. (Original) An apparatus for correcting shifts in position and attitude of an object which is held by a holding member and to which fiducial mark 1 and fiducial mark 2 are applied, said apparatus comprising:

- an imaging device for imaging the fiducial mark 1 and fiducial mark 2;
- an image-processing device for processing image information imaged by the imaging device to thereby obtain a position data;
- a rotating mechanism for rotating the holding member holding the object to be held substantially by 180 degrees in a horizontal plane; and
- an operation unit for operating, on the basis of the position data of the fiducial mark 1 and the

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fiducial mark 2 rotated by 180 degrees, an amount of position shift from a rotational center of the holding member to a center of the object to be held and an amount of angle shift of the object in a horizontal plane with respect to a fiducial line of the holding member.